Amendments to the Specification

Please replace the Abstract with the following:

~~In one embodiment, an Ethernet~~ A bridge operates in either VLAN aware mode or VLAN unaware mode as specified by a user. A packet is received in a priority tagged format containing an associated VLAN identifier. The packet is processed according to a VLAN aware mode by setting said VLAN identifier equal an identifier associated with the incoming port on which said packet is received An address table is searched using a destination address and the VLAN identifier to determine a destination port. The packet is sent to the determined destination port.~~The width of a CAM used for storing address table can be minimized by using a mapping of VLAN identifiers to small numbers, which are stored in the CAM. Flooding can be minimized by employing various techniques. Communication can be quickly re-established even if the Ethernet address (or the machine having that address) moves to be reachable on different ports of the Ethernet bridge. Sufficiently quick response to bridge protocols may be ensured by using an external processor to generate responses, and providing a higher priority DMA channel to transfer packets related to the bridge protocols.~~